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January 29, 2003

OVERNIGHT DELIVERY

Ms. Kay R. H. Evans
Executive Director
Maine State Retirement System
#46 State House Station
Augusta, Maine 04333-0046

Re: Final PLD Consolidated Plan Valuation Report

Dear Kay:

Enclosed is one unbound copy of the final version of the June 30, 2002 PLD Consolidated plan valuation report.

Sincerely,

Milliman USA

Theresa Leatherbury

Theresa Leatherbury, F.S.A.
Principal and Consulting Actuary

cc: Althea Schwartz
Robert Dezube

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CONSOLIDATED PLAN
FOR PARTICIPATING LOCAL DISTRICTS
OF THE MAINE STATE RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT
as of June 30, 2002

A MILLIMAN GLOBAL FIRM
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Vienna, VA 22182-2700
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January 29, 2003

Board of Trustees
Maine State Retirement System
#46 State House Station
Augusta, Maine 04333-0046

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the Consolidated Plan for Participating Local Districts of the Maine State Retirement System as of the June 30, 2002. The results of the valuation are contained in the following report.

The actuarial assumptions used in this valuation were recommended by the actuary and adopted by the Board of Trustees based on Milliman's review of the Plan's experience completed in Fiscal Year 2002. These assumptions are described in Appendix D. We believe the assumptions used, in the aggregate, represent our best estimate of anticipated future experience of the plan. The results of this report are dependent upon future experience conforming to these assumptions. To the extent future experience deviates from these assumptions, the true cost of the plan could vary from these results. The results contained in this report are only applicable to the 2004 fiscal year. Future years results may differ significantly.

The assumptions and methods used in performing this valuation meet the parameters set for disclosure presented in the financial section by Government Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*.

In preparing our report, we have relied, without audit, on employee census data and asset data provided by the Retirement System. We reviewed the census and asset data for reasonableness, and for consistency with the data provided for the last valuation. If any data or other information is inaccurate or incomplete, our calculations may need to be revised.

We hereby certify that, to the best of our knowledge, this report is complete and accurate, and has been prepared in accordance with generally recognized and accepted actuarial principles and practices as promulgated by the American Academy of Actuaries.

Sincerely,

Milliman USA

I, Althea Schwartz, am a consulting actuary for Milliman USA. I am also a member of the American Academy of Actuaries and meet their Qualification Standards to render the actuarial opinion contained herein.

Althea Schwartz

Althea Schwartz, F.S.A.
Principal and Consulting Actuary

I, Theresa Leatherbury, am a consulting actuary for Milliman USA. I am also a member of the American Academy of Actuaries and meet their Qualification Standards to render the actuarial opinion contained herein.

Theresa Leatherbury

Theresa Leatherbury, F.S.A.
Principal and Consulting Actuary

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Consolidated Plan for Participating Local Districts of the Maine State Retirement System Actuarial Valuation Report

Table of Contents

SECTION I

BOARD SUMMARY

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

BOARD SUMMARY

Overview

As of June 30, 2002, there were 228 participating local districts in the Consolidated Plan for Participating Local Districts (PLDs) of the Maine State Retirement System. This report presents the results of our June 30, 2002, actuarial valuation for this Plan. Comments on the findings of our valuation are presented below. Following our comments are detailed tables of the June 30, 2002, results for the Regular Plans and Special Plans that comprise the Consolidated Plan.

Two significant changes are reflected in this valuation. First, we recommended and the Board adopted several actuarial assumption changes after completion of the first experience study performed on this plan. The changes, recommended to and accepted by the Board at its June 2002 meeting, are detailed in a separate report and itemized in Appendix D.

Secondly, several PLDs paid off the outstanding balances of their individual Initial Unpooled Unfunded Actuarial Liability (IUUAL) this year. This group included the City of Portland, whose IUUAL constituted about half of the total IUUAL amount reported as of last year's valuation for all PLDs having IUUALs. IUUAL balances in the course of being paid off are assets of the Plan. While reduction or elimination does not affect valuation results, funding ratios are affected, as can be seen in comparing last year's results to this year's on pages I-6 through I-8. The assumption changes noted above also affected funding ratios.

For the sixth year in a row, the Pooled Unfunded Actuarial Liability (PUAL) is negative (that is, the Plan's pooled assets exceed its pooled liabilities) as of this valuation date because, while investment returns were negative for the year ending June 30, 2002, they were on average over the last six years greater than the investment return assumption of 8%. The negative PUAL is translated into a reduction in the normal cost rates otherwise payable. The amount of the reduction varies by plan; however, mathematically, the result is a net employer contribution rate that is less than zero in all Regular Plans and all Special Plans. When the 1999 actuarial valuation for the Plan indicated a net employer contribution rate less than zero, the Board, based on our recommendation and its own policy decisions, reduced slightly the then-existing rates and initiated an intensive study to determine whether the funding methodology then in place was the best approach given the Plan's well-funded status. The study examined several funding methodologies intended to manage the volatility associated with a well- or fully-funded plan and to address policy concerns related to employer contribution rates at or near zero.

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

We prepared and the Board examined multiple scenarios illustrating the application of selected funding approaches and their results. The Board ultimately decided on the methodology that establishes an employer contribution rate that is fixed within a given range of full-funded status ("base rate"), is incrementally adjusted when the funded status falls outside of the upper or lower limits of the range and is never less than a given minimum rate, except when the Board identifies compelling circumstances dictating otherwise. The "base rate" represents the aggregate of the rates related to the various plans within the Consolidated Plan. The rates for the various plans reflect the payroll-weighted normal cost and pooled UAL contributions under each plan. The Board decided that the base rate be set at 3% of payroll, that the upper and lower limits of the range be set at 130% and 90% of full funding, respectively, that the factor for incremental adjustments when funded status falls above or below the range be set at 10% of the difference between the calculated rate and the rate then in effect, and that the minimum base rate be set at 1% of payroll. As neither limit of the range is crossed in this current valuation, the base rate of 3% (which is the same as that set in the 2000 valuation and unchanged in the 2001 valuation) is in effect and the resulting rates for each plan in the Consolidated Plan are those shown in the chart in Section IV of this report.

In the following sections of the report we present detailed results on Plan Assets (Section II), Plan Liabilities (Section III), and Plan Contributions (Section IV). This report also contains four Appendices. Appendix A displays a list of the 228 PLDs that have entered the Plan and each PLD's benefit plan elections. Appendix B presents membership data and profiles and Appendix C provides a summary of benefit provisions of the plans within the Plan. Finally, an outline of all actuarial assumptions and procedures used in our valuation is contained in Appendix D.

Valuation Comments

Assets

As of June 30, 2002, the Plan had assets, when measured on a market value basis, of $1,332 million as compared to $1,307 million as of June 30, 2001.

On an actuarial basis, using a method which smooths market fluctuations, the Plan's assets were valued at $1,537 million on June 30, 2002, as compared to $1,381 million as of June 30, 2001. The components of this change, in millions, are:

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

Actuarial		Market
+ 191	employer and member contributions	+ 191
- 68	payment of benefits and expenses	- 68
+ 115	investment return per 8.0% assumption	+ 109
- 82	actuarial investment loss (actuarial rate of return @ positive 1.2%)	
	market investment loss (market rate of return @ minus 7.6%)	- 207
156	total change in assets	25

Section II of this report presents more detailed information on Plan assets.

Liabilities

Throughout this report we discuss two types of liabilities: (1) Unfunded Actuarial Accrued Liabilities and (2) Unfunded Accrued Benefit Liabilities. In Section III, we discuss in detail the different uses and definitions of these terms.

In general, Actuarial Liabilities are calculated for purposes of determining future contributions. Since actuarial funding methods are used to determine costs for future retirement benefits, unfunded actuarial liabilities will include future increases in pay and service credits. The calculated amount of a plan's actuarial liabilities is directly dependent on the particular funding method used by the actuary; use of different funding methods would provide entirely different results, even when none of the factors (e.g., inflation, salary growth, etc.) is different. In this valuation, the "Entry Age Normal" method of funding was used.

As of June 30, 2002, the total actuarial liability for the Plan was $1,313 million, as compared to $1,366 million as of June 30, 2001. Comparing this to the actuarial value of assets of $1,537 million produces an unfunded actuarial liability (or surplus) of ($224) million. An additional $36 million is owed to the Plan by those PLDs having IUUALs (described in detail on page III-1). Thus the Plan has a pooled surplus of $260 million as of June 30, 2002. As of June 30, 2001 the pooled surplus was $214 million. The components of the decrease in the unfunded actuarial liability (or increase in the surplus), in millions, are as follows:

Pooled Unfunded Actuarial Liability, June 30, 2001	$ (214)
increase expected	3
decrease due to assumption changes	(104)
increase due to lower than expected investment return	82
decrease due to other (gains)	(27)
Pooled Unfunded Actuarial Liability, June 30, 2002	$ (260)

The unexpected decrease in unfunded actuarial liabilities from “other (gains)” of $27 million is attributable to the difference between assumed and actual rates of pay increases, retirements, terminations and deaths.

The second type of liability presented in this report is the Accrued Benefit Liability. This represents the liabilities for all benefits to be paid in the future, based on members' earnings and service credits as of the valuation date. The difference between this figure and plan assets represents the Unfunded Accrued Benefit Liability. As of June 30, 2002, there is no Unfunded Accrued Benefit Liability.

More detailed information on plan liabilities is presented in Section III.

Contributions

In Section IV of this report, we present detailed information on the development of Plan employer contribution rates, calculated as of June 30, 2002.

Employer contributions to the Plan consist of:

- a "normal cost contribution", for the portion of projected liabilities attributable to service of members during the year following the valuation date,

- a "pooled unfunded actuarial liability contribution", for the excess of projected liabilities allocated to service to date over assets on hand and receivables from PLDs entering the Plan with IUUALs.

The normal cost varies by plan and is shown in detail in Table IV-1.

The Pooled UAL (PUAL) rate for all employees changed from –10.1% of payroll as of June 30, 2001, to –11.6% of payroll as of June 30, 2002. The primary components of this change are shown below.

Pooled UAL Rate as of June 30, 2000	-10.1%
Change in actuarial assumptions	-3.2%
investment loss (due to lower than expected investment returns)	2.5%
other (gains)/losses	-0.8%
Pooled UAL Rate as of June 30, 2002	-11.6%

The PUAL rate as calculated above would normally be reflected in the FY 2004 contribution rates. The PUAL rate is allocated to the individual plans and is used to offset the individual plans' normal costs to develop the ultimate rate for each plan. Because the PUAL rate would completely offset the Normal Cost rate for the respective individual plans, resulting in rates less than zero, and because of our recommendation against that result, the ensuing funding methodology study and the Board's decision not to establish zero rates, the rates summarized in Table IV-1 are based on the PUAL rate as developed in the 1999 valuation.

Employees also contribute to the plans: Employee contribution rates are detailed in Appendix C-1.

Members and Benefit Recipients

The total active membership of the Consolidated Plan increased from 8,753 as of June 30, 2001 to 8,843 as of June 30, 2002. The number of benefit recipients increased from 6,289 as of June 30, 2001 to 6,325 on June 30, 2002. The number of vested inactive members increased from 318 on June 30, 2001 to 363 on June 30, 2002.

The total annual payroll of active members in all plans increased from $248 million as of June 30, 2001 to $262 million as of June 30, 2002. Appendix B of this report presents more detail regarding members and benefit recipients.

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

SUMMARY OF PRINCIPAL RESULTS
TOTAL

		June 30, 2002	June 30, 2001
1.	Participant Data		
	Number of:		
	Active Members	8,843	8,753
	Retired Members	4,821	4,797
	Beneficiaries of Retired Members	918	907
	Survivors of Deceased Members	222	231
	Disabled Members	364	354
	Vested Deferred Members	363	318
	Total Membership	15,531	15,360
	Annual Salaries of Active Members	$ 262,143,592	$ 248,220,217
	Annual Retirement Allowances for Retired Members, Beneficiaries, Survivors and Disabled Members	$ 61,854,927	$ 58,880,257
2.	Assets and Liabilities		
	Funding Liability		
	Actuarial Accrued Liability	$ 1,313,083,223	$ 1,366,485,266
	Actuarial Value of Assets	1,537,234,672	1,381,355,851
	Unfunded Actuarial Liability	$ (224,151,449)	$ (14,870,585)
	Unpooled Portion (IUUAL)	36,305,153	199,077,115
	Pooled Portion (PUAL)	$ (260,456,602)	$ (213,947,700)
	Actuarial Liability Funding Ratio	117%	101%
	FASB Accounting Liability		
	Accrued Benefit Liability	$ 1,100,814,701	$ 1,126,532,468
	Market Value of Assets	1,331,899,294	1,307,328,009
	Unfunded Accrued Benefit Liability	$ 0	$ 0
	Accrued Benefit Funding Ratio	121%	116%

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

SUMMARY OF PRINCIPAL RESULTS
REGULAR PLANS AC, AN & BC

		June 30, 2002	June 30, 2001
1.	Participant Data		
	Number of:		
	Active Members	7,197	7,146
	Retired Members	3,419	3,397
	Beneficiaries of Retired Members	733	730
	Survivors of Deceased Members	202	210
	Disabled Members	289	282
	Vested Deferred Members	354	311
	Total Membership	12,194	12,076
	Annual Salaries of Active Members	$ 194,991,715	$ 184,640,948
	Annual Retirement Allowances for Retired Members, Beneficiaries, Survivors and Disabled Members	$ 35,646,957	$ 33,944,059
2.	Assets and Liabilities		
	Funding Liability		
	Actuarial Accrued Liability	$ 764,529,514	$ 811,398,536
	Actuarial Value of Assets	919,127,660	851,997,503
	Unfunded Actuarial Liability	$ (154,598,146)	$ (40,598,967)
	Unpooled Portion (IUUAL)	21,122,263	90,929,764
	Pooled Portion (PUAL)	$ (175,720,409)	$ (131,528,731)
	Actuarial Liability Funding Ratio	120%	105%
	FASB Accounting Liability		
	Accrued Benefit Liability	$ 621,353,716	$ 634,382,036
	Market Value of Assets	796,355,628	806,338,351
	Unfunded Accrued Benefit Liability	$ 0	$ 0
	Accrued Benefit Funding Ratio	128%	127%

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

SUMMARY OF PRINCIPAL RESULTS
SPECIAL PLANS 1C-4C & 1N-4N

		June 30, 2002	June 30, 2001
1.	Participant Data		
	Number of:		
	Active Members	1,646	1,607
	Retired Members	1,402	1,400
	Beneficiaries of Retired Members	185	177
	Survivors of Deceased Members	20	21
	Disabled Members	75	72
	Vested Deferred Members	9	7
	Total Membership	3,337	3,284
	Annual Salaries of Active Members	$ 67,151,877	$ 63,579,269
	Annual Benefits to Recipients	$ 26,207,970	$ 24,936,198
2.	Assets and Liabilities		
	Funding Liability		
	Actuarial Accrued Liability	$ 548,553,709	$ 555,086,730
	Actuarial Value of Assets	618,107,012	529,358,348
	Unfunded Actuarial Liability	$ (69,553,303)	$ 25,728,382
	Unpooled Portion (IUUAL)	15,182,891	108,147,351
	Pooled Portion (PUAL)	$ (84,736,194)	$ (82,418,969)
	Actuarial Liability Funding Ratio	113%	95%
	FASB Accounting Liability		
	Accrued Benefit Liability	$ 479,460,985	$ 492,150,432
	Market Value of Assets	535,543,666	500,989,658
	Unfunded Accrued Benefit Liability	$ 0	$ 0
	Accrued Benefit Funding Ratio	112%	102%

SECTION II

ASSETS

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

ASSETS

In this section we present the value assigned to assets held by the Plan. These assets are valued on two different bases: market value and actuarial value.

Market Value of Assets

For accounting statement purposes, Plan assets are valued at current market values. Briefly stated, these values represent the "snapshot" or "cash-out" value of Plan assets as of the valuation date.

Actuarial Value of Assets

The market value of assets, representing a “liquidation” value of the funds, is not a good measure of the Plan’s ongoing ability to meet its obligations. Ongoing funding requirements established using market values are subject to significant variability because of the volatility of market values.

As a consequence, actuarial valuations employ a technique for determining the actuarial value of assets that dampens the swings in market value. The specific technique adopted in this valuation recognizes in a given year one-third of the investment return that is in excess of the 8.00% actuarial assumption for investment return. The following is a step-by-step description:

Step 1: Determine the total yield on the investments of the Plan using the full investment return (including capital gains) measured by the difference in the actuarial value of the assets at the beginning of the fiscal year just ended (adjusted for cash flow) and the market value of assets at the end of the fiscal year. The calculation of this return is:

(a) Increase in assets = Market value of assets at the end of the year minus actuarial value of assets at the end of the prior year adjusted for net cash flow for the current year (contributions minus benefit payments) [=($928,844,185)].

(b) Adjusted actuarial value of assets = Actuarial value of assets at the end of the prior year plus one-half of net cash flow for the current year [=$7,457,037,491].

(c) Return = (a) (Increase in assets) divided by (b) (Adjusted actuarial value of assets) [=(12.46%)].

Step 2: Calculate the excess of the actual return determined in Step 1 over the expected return for the same year according to the actuarial assumption (8.00%). [(12.46%) - 8.00% = (20.46%)]

Step 3: Calculate an adjusted rate that is equal to the rate expected by the actuarial assumption (8.00%) plus one-third of the rate determined in Step 2. [8.00% + (⅓ x (20.46%)) = 1.18%]

Step 4: The actuarial value of assets equals the amount that would have existed if the actual return on the prior year's actuarial value of assets had been the theoretical rate determined in Step 3 applied to the prior year's actuarial value of assets.

This four-step process and the amounts shown are applied in aggregate to the total assets of the System. The portion allocated to the PLD Consolidated Retirement Plan is based on the reported market value applicable to the Plan.

TABLE II - 1

ASSET ALLOCATION

	Regular Plans	Special Plans	Total
Market Value	$796,355,628	$535,543,666	$1,331,899,294
Actuarial Value	$919,127,660	$618,107,012	$1,537,234,672

SECTION III

LIABILITIES

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

LIABILITIES

Actuarial Liabilities

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. There are several methods currently used by actuaries to realize this principle.

The method used for this valuation is referred to as the "entry age normal actuarial cost method". Under this method, a level-percent-of-pay employer cost is determined for each plan that, along with member contributions, will pay for projected benefits at retirement for a new entrant into the plan. This cost is assumed applicable to all active plan members. The level percent of pay is called the normal cost rate, and the product of that rate and payroll is the normal cost.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal cost contributions and member contributions. If this liability is greater than the actuarial value of plan assets as of the same date, the difference is referred to as the unfunded actuarial liability.

Upon entering the Consolidated Plan, each PLD had its individual actuarial liability calculated. Each PLD having an Initial Unpooled Unfunded Actuarial Liability (IUUAL) will pay this liability on a scheduled basis, in addition to making the Normal Cost Contribution required by the plan(s) in which it participates. Each PLD having negative IUUALs (i.e., positive balance) will use this balance to pay part or all of its employer contribution. Each year the valuation for the Consolidated Plan will calculate the Pooled Unfunded Actuarial Liability (PUAL) of the Regular and of the Special Plans under the Plan, and adjust the employer contribution rates accordingly. Benefit improvements, actuarial gains and losses, and changes in actuarial assumptions and methodologies, if any, will have an effect on the total actuarial liabilities of the Regular and of the Special Plans under the Plan and on the portions of these that are unfunded. In Table III-1 we have summarized the actuarial liabilities as of June 30, 2002.

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

Accounting Statement Information

Statement No. 35 of the Financial Accounting Standards Board requires that every pension plan disclose certain information regarding the status of the plan.

As directed by the above referenced accounting statements, the liabilities shown in Table III-2, Accrued Benefit Liabilities, do not include any projections for future creditable service and pay increases.

The Governmental Accounting Standards Board (GASB) released a new pronouncement (Statement No. 25) which replaced the disclosures formerly required by Statement No. 5. The figures shown in Table III-1 are suitable for the new Statement No. 25 disclosures.

Both types of present values of benefits are determined assuming that the plan is ongoing and members continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

All PLDs that enter the Consolidated Plan cease to be individual sponsors of a "Single-Employer Defined Benefit Pension Plan" and instead become participants in a "Cost-Sharing Multiple-Employer Defined Benefit Pension Plan". As such, the disclosures made by individual PLDs should reflect the assets and liabilities of the Regular and/or Special Plan(s) under the Consolidated Plan in which a PLD participates and not those of the PLD itself.

TABLE III-1
CONSOLIDATED PLAN FOR PARTICIPATING LOCAL DISTRICTS
OF THE MAINE STATE RETIREMENT SYSTEM
June 30, 2002

ACTUARIAL LIABILITIES

	Regular Plans	Special Plans	Total
1. Present Value of Benefits	$ 951,652,147	$ 635,956,035	$ 1,587,608,182
2. Present Value of Future Contributions			
1. Employer Normal Cost	99,778,205	51,169,654	150,947,859
2. Employee Contributions	87,344,428	36,232,672	123,577,100
3. Actuarial Accrued Liability (1) - (2)	$ 764,529,514	$ 548,553,709	$ 1,313,083,223
4. Actuarial Value of Assets			
1. Total Invested Assets	$ 958,911,842	$ 638,436,265	$ 1,597,348,107
2. IUUAL Surpluses in Individual PLD Accounts	39,784,182	20,329,253	60,113,435
3. Valuation Assets (a)-(b)	$ 919,127,660	$ 618,107,012	$ 1,537,234,672
5. Unfunded Actuarial Accrued Liability			
1. Total Unfunded Liability (3) - (4c)	$ (154,598,146)	$ (69,553,303)	$ (224,151,449)
2. Individual PLD Unpooled Liability (IUUAL)	21,122,263	15,182,891	36,305,153
3. Pooled Unfunded Actuarial Liability (a) - (b)	$ (175,720,409)	$ (84,736,194)	$ (260,456,602)
6. Amortization over 15 Years	$ (20,529,284)	$ (9,899,666)	$ (30,428,950)
7. Payroll	$ 194,991,715	$ 67,151,877	$ 262,143,592
8. Pooled Unfunded Actuarial Liability Contribution Rate	-10.5%	-14.7%	-11.6%

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

TABLE III-2
ACCRUED BENEFIT LIABILITY

	Regular Plans	Special Plans	Total
1. Present Value of Accrued Benefits			
a. Vested Inactive Members	$ 14,251,417	$ 197,446	$ 14,448,863
b. Retired Members, Beneficiaries Disabled Members and Survivors	344,447,953	315,178,023	659,625,976
c. Active Members	262,654,346	164,085,516	426,739,862
d. Total	$ 621,353,716	$ 479,460,985	$1,100,814,701
2. Market Value of Assets	796,355,628	535,543,666	1,331,899,294
3. Unfunded Accrued Benefit Liability (1) - (2)	$ 0	$ 0	$ 0
4. Accrued Benefit Funding Ratio (2)/(1)	128%	112%	121%

SECTION IV

CONTRIBUTIONS

CONTRIBUTIONS

General Comments

Under established procedures, employer contribution rates based on this June 30, 2002, actuarial valuation, including our recommendation and the Board's decision not to establish zero rates, are used to determine Fiscal Year 2004 contributions. In this context, the term "employer contribution rate" means the percentage that is applied by each PLD to its active member payroll to determine the PLD's actual employer contribution amount.

In addition to the applicable employer contribution rate, each individual PLD will make a dollar payment (or receive a dollar credit) based on its IUUAL to be added to (or subtracted from) the amount derived by applying the employer contribution rate to the participant payroll.

Employees are required to contribute to the plans: Employee contribution rates are detailed in Appendix C-1.

Description of Rate Components

The Entry Age Normal funding method was used to develop the employer contribution rates in this section. Under this funding method, as with most other actuarial funding methods, a total contribution rate is determined which consists of two elements: the normal cost rate and the pooled unfunded actuarial liability rate.

Normal Cost Rate

For each of the Regular and Special Plans in the Consolidated Plan, an individual entry age normal cost rate was determined for a typical new entrant. This rate was determined by taking the value, as of age at entry into the plan, of the typical member's projected future benefits (including retirement, disability and death benefits), reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of the member's expected future salary. The normal cost rate, so determined separately for each Regular and each Special Plan, was assumed applicable to all active members of each of the plans.

Pooled Unfunded Actuarial Liability Rate

The unfunded actuarial liability under the Entry Age Normal method equals the present value, at time of valuation, of future benefits less the present value of future normal costs, future member contributions, future IUUAL payments and current assets. Under the Consolidated Plan, a Pooled Unfunded Actuarial Liability Rate is calculated for the Regular Plans as a group and for the Special Plans as a group. The rate for each group is then allocated to each plan within the Regular Plans and to those within the Special Plans, respectively, on the basis of total normal cost plus employee contributions for each such plan. That is, those plans which constitute a larger portion of the overall liability will pay a larger portion of the pooled UAL rate or receive a larger credit if the rate is negative.

IUUAL Payments/(Credits)

In addition to employer contributions required under the Consolidated Plan, each individual PLD in the Consolidated Plan that came into the Plan with liabilities in excess of assets continues to make payments on its IUUAL. Where IUUAL payments are due, each PLD makes payment of a specific dollar amount. Where a PLD had, at the time of entry into the Consolidated Plan, surplus assets, the PLD uses a portion of the surplus toward payment of its employer contributions to the Consolidated Plan. Credit transactions, also of specific dollar amounts, are accomplished by MSRS accounting entries.

Employer Contribution Rate Summary

In Table IV-1 we present employer contribution rates applicable for determining the Fiscal Year 2004 contributions to the Plan, using the cost methods described above. These were developed using actuarial assumptions and methods described in Appendix D.

TABLE IV-1
CONSOLIDATED PLAN FOR PARTICIPATING LOCAL DISTRICTS
OF THE MAINE STATE RETIREMENT SYSTEM
EMPLOYER CONTRIBUTION RATES*
FISCAL YEAR 2004

		Pooled Unfunded Actuarial Liability		
	Normal Cost**	Regular Plans	Special Plans	Total Rates
Plans with COLA				
Regular Employees Plan AC	7.9%	-5.1%		2.8%
Regular Employees Plan BC	5.3%	-3.6%		1.7%
Special Plan 1C	16.8%		-10.3%	6.5%
Special Plan 2C	9.6%		-5.6%	4.0%
Special Plan 3C	12.6%		-7.3%	5.3%
Special Plan 4C	7.9%		-4.4%	3.5%
Plans with No COLA				
Regular Employees Plan AN	4.1%	-2.6%		1.5%
Special Plan 1N	9.2%		-5.6%	3.6%
Special Plan 2N	4.9%		-2.7%	2.2%
Special Plan 3N	6.5%		-3.6%	2.9%
Special Plan 4N	3.6%		-1.7%	1.9%

* IUUAL payments are made in addition to these costs and IUUAL credits are taken against these costs.
** Includes costs of ancillary benefits.

APPENDIX A

PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Androscoggin County	67	A [1]	1	2	Yes	07/01/94	
Androscoggin Valley Council of Governments	231	A			Yes	07/01/96	
Aroostook County	106	A			Yes	07/01/94	
Auburn Housing Authority	145	A			Yes	07/01/94	
Auburn Lewiston Airport	256	A			Yes	07/01/96	
Auburn Public Library	43	A			No	07/01/96	
Auburn Water and Sewer District	52	A			Yes	07/01/94	
Augusta Sanitary District	64	A			Yes	07/01/94	
Augusta Water District	34	A			Yes	07/01/94	
Bangor Housing Authority	288	A			Yes	07/01/94	
Bangor Public Library	22	A			Yes	07/01/96	
Bangor Water District	59	B [2]			Yes	07/01/96	
Bath Water District	19	A			Yes	07/01/94	
Belfast Water District	132	A			Yes	07/01/95	
Berwick Sewer District	207	A			Yes	07/01/94	
Boothbay Region Water District	298		2		Yes	01/01/2002	
Brewer Housing Authority	248	A			Yes	07/01/94	
Brewer Water District	68	A			No	07/01/96	
Bridgton Water District	253	A			No	07/01/96	
Brunswick Fire and Police	292		1	2	FO	07/01/97	07/01/97
Brunswick Public Library	273	A			FO	07/01/95	07/01/95
Brunswick Sewer District	72	A			Yes	07/01/96	

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Caribou Police and Fire	208	A	1	2	No	07/01/96	
Carrabasett Valley	277	A			FO	07/01/94	07/01/94
Cheverus High School	203		2		No	07/01/96	
City of Auburn	27	A	2		Yes	07/01/94	
City of Augusta	23	A	1	2	Yes	07/01/94	
City of Bangor	20	A	1	2	Yes	07/01/96	
City of Bath	73		2	3	Yes	07/01/96	
City of Belfast	35	A	2		Yes	07/01/96	
City of Biddeford	158	A			No	07/01/96	
City of Brewer	63	A	2		Yes	07/01/96	
City of Calais	36	A			FO	07/01/96	07/01/96
City of Ellsworth	13	A	4		Yes	07/01/95	
City of Gardiner	24	A	3		No	07/01/96	
City of Hallowell	160	A			Yes	07/01/96	
City of Lewiston	48	A	1	2	Yes	07/01/96	
City of Old Town	111	A	2		No	07/01/95	
City of Portland	2	A	1	2	Yes	07/01/95	
City of Rockland	18	A	3	2[3]	Yes	07/01/95	
City of Saco	192	A	2		No	07/01/95	
City of South Portland	9	A	2		Yes	07/01/95	
Community School District #12	252	A			Yes	07/01/96	
Community School District #915	233	A			Yes	07/01/95	
Corinna Sewer District	251	A			No	07/01/96	
Cumberland County	5	A			Yes	07/01/96	

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Dover - Foxcroft Water District	137	A			Yes	07/01/94	
Eagle Lake Water & Sewer District	274	A			Yes	07/01/96	
Erskine Academy	249	A			No	07/01/94	
Falmouth Memorial Library	58	A			Yes	07/01/96	
Farmington Village Corp.	118	A			No	07/01/94	
Fort Fairfield Housing Authority	275	A			FO	07/01/94	07/01/94
Fort Fairfield Utilities District	131	A			Yes	07/01/96	
Gardiner Water District	221	A			No	07/01/94	
Gould Academy	205	A			No	07/01/96	
Hampden Water District	183	A			Yes	07/01/96	
Hancock County	56	A			Yes	07/01/94	
Houlton Water District	26	A			Yes	07/01/95	
Indian Township Tribal Gov't	244	A			No	07/01/96	
Jackman Utility District	294	A			Yes	07/01/96	
Kennebec County	47	A			Yes	07/01/95	
Kennebec Sanitary Treatment District	220	A			FO	07/01/95	07/01/95
Kennebec Water District	31	A			Yes	07/01/96	
Kennebunk Light and Power Co.	62	A			Yes	07/01/94	
Kennebunk Sewer District	201	A			FO	07/01/94	07/01/2000
Kennebunk, Kennebunkport & Wells Water District	255	A			FO	07/01/96	07/01/99
Kittery Water District	12	A			Yes	07/01/94	
Lew Aub Water Pollution Control Authority	163	A			FO	07/01/96	07/01/96
Lewiston Housing Authority	154	A			Yes	07/01/94	

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Lewiston - Auburn 9-1-1	291	A			Yes	07/01/94	
Lincoln Academy	134	A			Yes	07/01/94	
Lincoln Sanitary District	219	A			Yes	07/01/94	
Lincoln Water District	92	A			Yes	07/01/95	
Lisbon Water Department	243	A			No	07/01/96	
Livermore Falls Water District	32	A			Yes	07/01/94	
Lubec Water and Electric District	88	A			Yes	07/01/96	
Madawaska Water District	236	A			Yes	07/01/94	
MADSEC	297	A			Yes	07/01/99	
Maine County Commissioners Assoc.	225	A			No	07/01/96	
Maine International Trade Center	293	A			Yes	07/01/98	
Maine Maritime Academy	38	A	2		Yes	07/01/96	
Maine Municipal Bond Bank	93	A			Yes	07/01/95	
Maine School Management Association	239	A			Yes	07/01/94	
Maine State Retirement Agency	290	A			Yes	07/01/94	
Maine Turnpike Authority	49	A			Yes	07/01/94	
Maine Veterans Home	271	A			Yes	07/01/94	
Mars Hill Utility District	283	A			Yes	07/01/94	
Me Secondary School Principals Association	105	A			Yes	07/01/94	
Mechanic Falls Sanitary District	282	A			FO	07/01/94	07/01/2002
Milo Water District	238	A			No	07/01/96	
Mt Desert Island Reg. School District	120	A			Yes	07/01/96	
Norway Water District	136	A			FO	07/01/95	07/01/2000

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Old Town Housing Authority	262	A			FO	07/01/94	07/01/94
Old Town Water District	79	A			No	07/01/94	
Oxford County	57	A			Yes	07/01/94	
Paris Utility District	159	A			Yes	07/01/95	
Penobscot County	11	A			Yes	07/01/94	
Penquis Cap Inc	237	A			No	07/01/95	
Piscataquis County	121	A			Yes	07/01/94	
Pleasant Point Passamaquoddy	165	A			Yes	07/01/96	
Portland Housing Authority	185	A			Yes	07/01/94	
Portland Public Library	41	A			Yes	07/01/95	
Richmond Utilities District	242	A			No	07/01/94	
Rumford Fire and Police	60	A	3	4	Yes	07/01/95	
Rumford Mexico Sewerage District	247	A			Yes	07/01/96	
Rumford Water District	65	A			Yes	07/01/95	
Sanford Housing Authority	152	A			Yes	07/01/96	
Sanford Sewerage District	89	A			No	07/01/94	
Sanford Water District	170	A			No	07/01/96	
School Administrative District No. 9	119	A			Yes	07/01/95	
School Administrative District No. 13	223	A			Yes	07/01/96	
School Administrative District No. 16	190	A			No	07/01/94	
School Administrative District No. 21	211	A			FO	07/01/96	07/01/2000
School Administrative District No. 29	168	A			Yes	07/01/96	
School Administrative District No. 31	50	A			FO	07/01/94	07/01/94

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
School Administrative District No. 41	143	A			Yes	07/01/96	
School Administrative District No. 49	189	A			No	07/01/95	
School Administrative District No. 51	198	A			No	07/01/96	
School Administrative District No. 53	129	A			No	07/01/96	
School Administrative District No. 54	115	A			Yes	07/01/96	
School Administrative District No. 60	187	A			No	07/01/94	
School Administrative District No. 67	126	A			Yes	07/01/96	
School Administrative District No. 71	128	A			No	07/01/96	
Searsport Water District	124	A			No	07/01/96	
So Penobscot Voc School Reg. #4	269	A			No	07/01/96	
So Portland Housing Authority	206	A			Yes	07/01/96	
Somerset County	101	A			Yes	07/01/94	
South Berwick Water	171		2		Yes	07/01/96	
Town of Baileyville	69	A	3		Yes	07/01/96	
Town of Bar Harbor	15	A	4		Yes	07/01/95	
Town of Berwick	108	A			No	07/01/96	
Town of Bethel	246	A			Yes	07/01/96	
Town of Boothbay Harbor	146	A			FO	07/01/96	07/01/96
Town of Brunswick	42	A			FO	07/01/95	07/01/2000
Town of Bucksport	130	A			No	07/01/95	

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Town of Camden	8	A			Yes	07/01/94	
Town of Chesterville	295	A [4]			Yes	07/01/99	
Town of China	235	A			No	07/01/96	
Town of Corinna	217	A			Yes	07/01/96	
Town of Cumberland	216	B [5]			Yes	07/01/95	
Town of Dexter	97	A			Yes	07/01/96	
Town of Dover Foxcroft	167	A			No	07/01/95	
Town of Durham	234	A			No	07/01/96	
Town of East Millinocket	54	A	2		Yes	07/01/96	
Town of Easton	240	A			Yes	07/01/94	
Town of Eliot	180	A	4		Yes	07/01/94	
Town of Fairfield	260	A	3		Yes	07/01/95	
Town of Falmouth	87	A			Yes	07/01/96	
Town of Farmington	100	A	1	2	Yes	07/01/95	
Town of Fayette	296	A			Yes	07/01/99	
Town of Fort Fairfield	17	A			Yes	07/1/2000	
Town of Frenchville	98	A			No	07/01/96	
Town of Fryeburg	149	A			No	07/01/96	
Town of Glenburn	174	A			Yes	07/01/94	
Town of Gorham	133	A	2	4	Yes	07/01/96	
Town of Greenville	112	A			Yes	07/01/96	
Town of Hampden	151	A			No	07/01/96	
Town of Harpswell	270	A			Yes	07/01/94	
Town of Harrison	280	B [6]			Yes	07/01/94	
Town of Hermon	150	A			No	07/01/96	
Town of Hodgdon	215	A			No	07/01/96	

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Town of Houlton	10	A	4[7]		Yes	07/01/96	
Town of Jay	45	A			Yes	07/01/94	
Town of Kennebunk	84	A	2		Yes	07/01/96	
Town of Kennebunkport	188	A	1		No	07/01/96	
Town of Kittery	14	A	1	2	Yes	07/01/95	
Town of Lebanon	181	A			Yes	07/01/96	
Town of Lincoln	76	A	3		No	07/01/96	
Town of Linneus	214	A			No	07/01/96	
Town of Lisbon	103	A	2		Yes	07/01/96	
Town of Livermore Falls	109	A			No	07/01/96	
Town of Lovell	276	A			Yes	07/01/96	
Town of Lubec	228	A			No	07/01/96	
Town of Madawaska	82	A			Yes	07/01/96	
Town of Mapleton	265	A			Yes	07/01/96	
Town of Mars Hill	227	A			Yes	07/01/96	
Town of Mechanic Falls	114	A			FO	07/01/94	07/01/94
Town of Medway	194	A			Yes	07/01/96	
Town of Mexico	74	A			Yes	07/01/96	
Town of Milford	186	A			No	07/01/96	
Town of Millinocket	3	A	3	4	Yes	07/01/96	
Town of Monson	184	A			No	07/01/96	
Town of Mount Desert	16	A			Yes	07/01/96	
Town of New Gloucester	210	A			No	07/01/95	
Town of North Berwick	254	A	1		No	07/01/96	

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Town of Norway	125	A			FO	07/01/96	07/01/2000
Town of Orland	166	A			No	07/01/96	
Town of Orono	61	A	4		FO	07/01/96	07/01/2002
Town of Orrington	209	A			No	07/01/95	
Town of Otisfield	193	A			FO	07/01/96	07/01/96
Town of Oxford	200	A			No	07/01/96	
Town of Paris	127	A			No	07/01/96	
Town of Phippsburg	202	A			Yes	07/01/96	
Town of Pittsfield	110	A			No	07/01/96	
Town of Princeton	258	A			No	07/01/96	
Town of Rockport	161	A			No	07/01/96	
Town of Rumford	90	A			Yes	07/01/95	
Town of Sabattus	175	A			No	07/01/96	
Town of Sanford	83	A	1		FO	07/01/95	07/01/2002
Town of Scarborough	147	A	2		Yes	07/01/96	
Town of Searsport	117	A			No	07/01/96	
Town of Skowhegan	80	A	3		Yes	07/01/96	
Town of South Berwick	141	A			FO	07/01/96	07/01/96
Town of St. Agatha	30	A			No	07/01/96	
Town of Topsham	81	A	2		Yes	07/01/96	
Town of Van Buren	182	A			Yes	07/01/95	
Town of Vassalboro	153	A			Yes	07/01/96	
Town of Waldoboro	195	A	3		Yes	07/01/95	
Town of Washburn	230	A			No	07/01/94	

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date	FO COLA Date
Town of Wells	107	A	3		Yes	07/01/95	
Town of Winslow	144	A			No	07/01/96	
Town of Winthrop	179	A			No	07/01/94	
Town of Yarmouth	116	A	2		Yes	07/01/96	
Town of York	28	A	2		Yes	07/01/94	
Tri Community Sanitary Landfill	267	A			Yes	07/01/96	
Van Buren Housing Authority	229	A			Yes	07/01/95	
Waldo County	46	A			Yes	07/01/94	
Waldo County Technical Center	224	A			No	07/01/96	
Washington County	40	A			Yes	07/01/96	
Waterville Fire and Police	66	A	3		No	07/01/96	
Waterville Sewerage District	222	A			Yes	07/01/94	
Wells Ogunquit CSD	266	A			FO	07/01/95	07/01/95
Westbrook Housing Authority	259	A			Yes	07/01/96	
Winter Harbor Utility District	250	A			Yes	07/01/95	
Yarmouth Water District	278	A			Yes	07/01/94	
York County	37	A	2		Yes	07/01/96	
York Sewer District	139	A			No	07/01/94	
York Water District	39	A			Yes	07/01/96	

Notes:

FO = Future Service COLA only, that is, for benefits attributable to service rendered after the Future Service COLA date.

[1] Employees hired prior to July 1, 1997 and who are members of the System are covered under Special Plan #1. Corrections Officers and Law Enforcement Officers hired on or after July 1, 1997, will be covered under Special Plan #2. All other employees hired on or after July 1, 1997, will be covered under Regular Plan A.

[2] applicable to all new hires on or after July 1, 1996. All members in the PLD at July 1, 1996 elected to remain in the 1/50 Plan under Regular Plan A.

[3] applicable to all new police hires on or after July 1, 1998.

[4] applicable for future service only from July 1, 2001.

[5] applicable to all new hires on or after July 1, 1995. All members in the PLD at July 1, 1995 elected to remain in the 1/50 Plan under Regular Plan A.

[6] applicable to all new hires on or after July 1, 1994. All members in the PLD at July 1, 1994 elected to remain in the 1/50 Plan under Regular Plan A.

[7] applicable for future service rendered by the Town's Firefighters and Police Officers from July 1, 2001.

APPENDIX B

MEMBER AND BENEFITS RECIPIENTS DATA AND PROFILES

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

MEMBER AND BENEFITS RECIPIENTS DATA AND PROFILES

ACTIVE MEMBER DATA

Regular Plans Members

Count	7,197
Average Current Age	45.5
Average Service	8.5
Average Valuation Pay	$ 27,094

Special Plans Members

Count	1,646
Average Current Age	39.6
Average Service	11.2
Average Valuation Pay	$ 40,797

All Plans Members

Count	8,843
Average Current Age	44.4
Average Service	9.0
Average Valuation Pay	$ 29,644

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

BENEFIT RECIPIENT AND INACTIVE VESTED MEMBER DATA

REGULAR PLANS

Retired Members, Beneficiaries, Disabled Members and Survivors

Count		4,643
Total Annual Benefit	$	35,646,957
Average Annual Benefit	$	7,678

Inactive Vested

Count		354
Total Annual Deferred Benefit (Payable at Normal Retirement Age)	$	2,283,787
Average Annual Deferred Benefit (Payable at Normal Retirement Age)	$	6,451

SPECIAL PLANS

Retired Members, Beneficiaries, Disabled Members and Survivors

Count		1,682
Total Annual Benefit	$	26,207,970
Average Annual Benefit	$	15,581

Inactive Vested

Count		9
Total Annual Deferred Benefit (Payable at Normal Retirement Age)	$	39,742
Average Annual Deferred Benefit (Payable at Normal Retirement Age)	$	4,416

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

BENEFIT RECIPIENT AND INACTIVE VESTED MEMBER DATA

ALL PLANS

Retired Members, Beneficiaries, Disabled Members and Survivors

Count		6,325
Total Annual Benefit	$	61,854,927
Average Annual Benefit	$	9,779

Inactive Vested

Count		363
Total Annual Deferred Benefit (Payable at Normal Retirement Age)	$	2,323,529
Average Annual Deferred Benefit (Payable at Normal Retirement Age)	$	6,401

APPENDIX C

SUMMARY OF PLAN PROVISIONS

REPORT OF THE ACTUARY ON THE VALUATION OF THE PLD CONSOLIDATED RETIREMENT PLAN AS OF JUNE 30, 2002

SUMMARY OF PLAN PROVISIONS

1. Member Contributions

Members are required to contribute a percent of earnable compensation which varies by plan as follows:

Regular AC & AN	6.5%
Regular BC	3.0%
Special 1C & 1N	6.5%
Special 2C & 2N	6.5%
Special 3C & 3N	8.0% for first 25 years, 6.5% after
Special 4C & 4N	7.5% for first 25 years, 6.5% after

2. Average Final Compensation

For purposes of determining benefits payable under the plan, average final compensation is the average annual rate of earnable compensation for the 3 years of creditable service (not necessarily consecutive) which produce the highest such average.

3. Creditable Service

Creditable service includes service while a member, certain service prior to the establishment of the plan, purchased service credit of which there are several types, and service while receiving disability benefits under the plan.

4. Service Retirement Benefits

<u>Regular Plan AC</u>

Normal Retirement Age: 60

Eligibility for member in active service and inactive members: 25 years of creditable service.

Eligibility alternative for members in active service: at least one year of creditable service immediately before retirement and at least normal retirement age.

Eligibility for members not in active service at retirement, and not in active service on or after October 1, 2000: at least 10 years of creditable service and at least normal retirement age.

Eligibility for members not in active service at retirement, but in active service on or after October 1, 2000: at least 5 years of creditable service and at least normal retirement age.

Benefit:	1/50 of average final compensation multiplied by years of membership service under Consolidated Plan A plus a variable percentage of average final compensation multiplied by years of service under any previous plans (the percentage depends on the previous plan(s)), the sum of which is reduced by approximately 2-¼% for each year that a member is younger than age 60 at retirement.
Form of payment:	life annuity ("full benefit"), unless an optional method of payment is selected.
Cost of living Adjustment:	See item 10.

Regular Plan AN

This benefit plan is the same as Regular Benefit Plan AC, except that there is no provision for cost of living adjustments.

Regular Plan BC

Normal Retirement Age: 60

Eligibility for member in active service and inactive members: 25 years of creditable service.

Eligibility alternative for members in active service: at least one year of creditable service immediately before retirement and at least normal retirement age.

Eligibility for members not in active service at retirement, and not in active service on or after October 1, 2000: at least 10 years of creditable service and at least normal retirement age.

Eligibility for members not in active service at retirement, but in active service on or after October 1, 2000: at least 5 years of creditable service and at least normal retirement age.

Benefit:	1/100 of average final compensation multiplied by years of membership service under Consolidated Plan B plus a variable percentage of average final compensation multiplied by years of service under any previous plans (the percentage depends on the previous plan(s)), the sum of which is reduced by approximately 2-1/4% for each year that a member is younger than age 60 at retirement.
Form of payment:	life annuity ("full benefit"), unless an optional method of payment is selected.
Cost of living Adjustment:	See item 10.

Note: Under certain circumstances, Regular Plan service can count, on a pro rata basis, toward meeting Special Plan benefit eligibility requirements.

Special Plan 1C

Eligibility:	20 years of creditable service in named positions.
Benefit:	½ of average final compensation plus 2% for each year of service in excess of 20.
Form of payment:	life annuity ("full benefit"), unless an optional method of payment is selected.
Cost of Living Adjustment:	See item 10.

Special Plan 1N

This benefit plan is identical to Special Benefit Plan 1C, except that there is no provision for cost of living adjustments.

Special Plan 2C

Eligibility:	25 years of creditable service in named positions.
Benefit:	½ average final compensation plus 2% for each year of service in excess of 25.
Form of payment:	life annuity ("full benefit"), unless an optional method of payment is selected.
Cost of Living Adjustment:	See item 10.

Special Plan 2N

This benefit plan is identical to Special Benefit Plan 2C, except that there is no provision for cost of living adjustments.

Special Plan 3C

Eligibility:	25 years of creditable service in named positions.
Benefit:	2/3 of average final compensation plus 2% for each year of service in excess of 25.
Form of payment:	life annuity ("full benefit"), unless an optional method of payment is selected.
Cost of Living Adjustment:	See item 10.

Special Plan 3N

This benefit is identical to Regular Benefit Plan 3C, except that there is no provision for cost of living adjustments.

Special Plan 4C

Eligibility: Age 55 with 25 years of creditable service in named positions.

Benefit: 1/50 of average final compensation multiplied by years of membership service under Consolidated Plan A plus a variable percentage of average final compensation multiplied by years of service under any previous plans (the percentage depends on the previous plan(s)), the sum of which is reduced by approximately 2-¼% for each year that a member is younger than age 55 at retirement.

Form of payment: life annuity ("full benefit"), unless an optional method of payment is selected.

Cost of Living Adjustment: See item 10.

Special Plan 4N

This benefit plan is identical to Special Benefit Plan 4C, except that there is no provision for cost of living adjustments.

Note: If Special Plan members fail to meet the Special Plan eligibility criteria, their service retirement benefits are those provided by the applicable underlying Regular Plan; Special Plan service credits are used toward Regular Plan eligibility requirements.

5. Pre-Retirement Accidental Death Benefits

Eligibility: Death while active or disabled resulting from injury received in the line of duty.

Benefit: - if the member leaves no dependent children, 2/3 of the member's average final compensation to the surviving spouse until death,

- if the member is survived by a spouse who has the care of dependent child(ren) of the member, the surviving spouse shall receive an annual sum equal to the member's average final compensation. When there is no longer any dependent child(ren), the surviving spouse shall receive 2/3 of member's average final compensation until death,

- if the member is survived by a spouse who does not have the care of the member's dependent child(ren), the surviving spouse and dependent child(ren) shall share equally an annual sum equal to the member's average final compensation. When there is no longer any dependent child(ren), the surviving spouse shall receive 2/3 of member's average final compensation until death,

- if the member leaves no spouse, the dependent child(ren) shall be paid an annual amount equal to the member's average final compensation. Benefits will cease when the last dependent child no longer meets the definition of "dependent child".

6. Pre-Retirement Ordinary Death Benefits

Eligibility:	Death while active, inactive eligible to retire, or disabled.
Benefit:	designated beneficiary, spouse, child(ren), or parents entitled to benefit calculated as if deceased member had retired under Option 2 (see item 12); however, beneficiary may elect survivor benefits payable to a surviving spouse, dependent child(ren), parents, or other designated beneficiaries in monthly amounts varying by status of beneficiary and number of eligible survivors. Otherwise, accumulated contributions with interest are payable to designated beneficiary, spouse, child(ren), older parent or estate.

7. Disability Benefits Other Than No Age Benefits

Eligibility:	Disabled as defined in the MSRS statutes, prior to normal retirement age; unable to perform duties of own position; employed prior to October 16, 1992 and did not elect No Age Disability Option.
Benefit:	66-2/3% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with worker's compensation and Social Security, exceeds 80% of average final compensation.
Form of payment:	Payment begins on termination of service and ceases on cessation of disability or after 5 years, unless the member is unable to engage in any substantially gainful activity; in which case payments cease on the earlier of 10 years following normal retirement age or date the service retirement benefit equals or exceeds the disability benefit.
Conversion to service retirement:	During the period of disability average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 66 2/3% of average final compensation or 10 years after the normal retirement date, if earlier, the disability benefit converts to a service retirement benefit based on service and average final compensation at that point.

8. No-Age Disability Benefits

Eligibility:	Disabled as defined in the MSRS statutes; employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No Age Disability.
Benefit:	59% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with worker's compensation and Social Security, exceeds 80% of average final compensation.

Form of payment:	Payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any substantially gainful activity; in which case payments cease on the date the service retirement benefit equals or exceeds the disability benefit.
Conversion to service retirement:	During the period of disability average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 59% of average final compensation the disability benefit converts to a service retirement benefit based on service and average final compensation at that point.

9. Refund of Contributions

Eligibility:	termination of service other than by retirement or death.
Benefit:	member's accumulated contributions with interest.

10. Cost of Living Adjustments

All retirement (and survivor) benefits payable to (or in relation to) benefit recipients who were employed by a PLD that elected a plan which provides for a COLA are adjusted each year that there is a percentage change in the Consumer Price Index, based on the Index. Cost of living adjustments are effective September 1 and are applied to all benefits which have been in payment for six months. The maximum annual increase or decrease is 4%.

11. Methods of Payment of Service Retirement Benefits

At retirement, a member must choose one of the following methods of payment.

Full Benefit:	Unadjusted benefit paid for the life of the member only.
Option 1:	Cash refund equal to the remaining employee contribution balance, if any, at the date of death (the employee contribution balance having been reduced each month by the portion of the monthly benefit deemed to be provided by employee contributions.).
Option 2:	100% joint and survivor annuity.
Option 3:	50% joint and survivor annuity.
Option 4:	Joint and survivor annuity at any percentage other than those available under Option 2 and Option 3.
Option 5:	Designated percentage of the benefit (not less than 51%) payable to the member, with the remaining percentage (the two to equal 100%) payable to a beneficiary (may only be a sole beneficiary) while both are alive. At the death of either, the higher of the two percentages is paid to the survivor for the survivor's life, and the lower-percentage benefit ceases to be paid.
Option 6:	100% joint and survivor annuity with pop-up*.
Option 7:	50% joint and survivor annuity with pop-up*.
Option 8:	Option 4 with pop-up*.

* The "pop-up" feature attached to a given Option means that in the case of a beneficiary predeceasing the member, the member's benefit will be revised prospectively to the amount that the benefit would have been had the member selected Full Benefit payment upon retirement.

APPENDIX D

ACTUARIAL ASSUMPTIONS AND METHODS

**REPORT OF THE ACTUARY ON THE VALUATION OF THE
PLD CONSOLIDATED RETIREMENT PLAN
AS OF JUNE 30, 2002**

ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return 8.0%

2. Cost of Living Increases in Benefits 4.0% (Where Applicable)

3. Rates of Termination at Selected Ages*

Age	Prior Assumption Regular & Special Plan Members % Leaving	Revised Regular	Revised Special
25	7.0%	19.5%	7.5%
30	6.0	12.5	7.5
35	5.0	10.0	4.2
40	4.0	7.5	3.2
45	3.0	5.3	2.2
50	2.0	3.6	2.0
55	1.0	2.3	2.0

* *Members with five or more years of service are assumed to elect deferred vested benefits; other terminations are assumed to elect refunds.*

4. Rates of Active Healthy Life Mortality at Selected Ages (number of deaths per 10,000 members)**

Age	Male	Female
25	7	3
30	9	4
35	9	5
40	12	8
45	17	10
50	28	15
55	48	25

** *For Regulars, 5% of deaths are assumed to arise out of and in the course of employment; for Specials, 20% of deaths are assumed to arise out of and in the course of employment.*

A. Actuarial Assumptions (cont.)

5. Rates of Inactive Health Life Mortality at Selected Ages (number of deaths per 10,000 members)

Age	Male	Female
25	6	3
30	8	5
35	11	7
40	16	9
45	29	14
50	53	22
55	85	33

6. Rates of Mortality for Future Anticipated Disableds at Selected Ages (number of deaths per 10,000 members)

Age	Male	Female
25	92	72
30	112	89
35	134	109
40	160	126
45	193	144
50	236	165
55	295	191
60	362	226
65	446	272
70	576	331

7. Rates of Disabled Life Mortality at Selected Ages (number of deaths per 10,000 members)

Age	Male	Female
25	391	528
30	315	467
35	321	326
40	332	215
45	349	191
50	376	207
55	420	240
60	488	288
65	595	366
70	763	487

A. Actuarial Assumptions (cont.)

8. Rates of Retirement at Selected Ages (number retiring per 1,000 members)

	Age	Prior Assumption	Revised Assumption
Regular Plans	45	25	50
	50	38	50
	55	50	100
	56	52	100
	57	55	100
	58	57	150
	59	60	250
	60	1,000	400
	63	1,000	250
	70	1,000	1,000

Special Plans

Prior assumption is that 100% retire when first eligible for retirement (i.e., after 20 years of service in Special Plan 1, after 25 years of service in Special Plans 2 and 3, and at the later age of 55 or 25 years of service in Special Plan 4.

Revised assumption: 50% of those eligible to retire in each year.

9. Rates of Disability at Selected Ages (members becoming disabled per 10,000 members) **

Age	Regular Plan	Special Plan
25	6	13
30	6	13
35	7	14
40	11	18
45	22	29
50	42	49
55	72	79

*** Disabilities are assumed to be 75% non-service connected for Regular employees and 25% non-service connected for Police and Fire.*

A. Actuarial Assumptions (cont.)

10. Family Composition Assumptions — 80% of active members are married and have two children born when the member is 24 and 28; children are dependent until age 18; spouses are same age; member has no dependent parents; unmarried members have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

11. Salary Growth Assumption

Prior Assumption — 5½% per annum

Revised Assumption

Rates of Increase at Selected Ages

Age	Increase
25	9.0%
30	7.5%
35	5.5%
40	5.5%
45	5.0%
50	4.5%
55	4.5%
60	4.5%

B. Actuarial Methods

1. Funding Method

The Entry Age Normal method is used to determine costs. Under this funding method, the total employer contribution rate is determined which consists of two elements, the normal cost rate and the pooled unfunded actuarial liability (PUAL) rate. The actual contribution for a given PLD will include an IUUAL payment as well, unless the PLD came into the Plan with surplus assets.

For each Regular and Special Plan, a normal cost rate is determined for the average new entrant. This rate is determined by taking the value, as of age at entry into the plan, of the member's projected future benefits, reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of the member's expected future salary.

In addition to normal cost contributions calculated per plan, the employers in each plan are required to make contributions to fund that plan's pooled unfunded actuarial liability, if any. The actuarial liability is defined as the present value of future benefits less the present value of future normal costs, less future member contributions, and less expected IUUAL payments. The pooled unfunded actuarial liability is the total of the actuarial liability for all members less the actuarial value of the Plan's assets. The actuarial liability includes projections of future member pay increases and future service credits.

The Initial Unpooled Unfunded Actuarial Liability (IUUAL) was calculated at entry into the Consolidated Plan for each PLD. For PLDs with liabilities greater than assets, these amounts are amortized by annual payments over a fixed number of years. Additional unfunded liability amounts which arise after entry to the Consolidated Plan will be pooled and amortized over 15 years.

2. Asset Valuation Method

The actuarial valuation employs a technique for determining the actuarial value of assets which dampens the swings in market value. The specific technique adopted in this valuation recognizes in a given year one-third of the investment return that is in excess of the 8.00% actuarial assumption for investment return.